

What is claimed is:

1. An absolute value calculating element comprising electrostrictive elements and a detecting means for detecting an amount of deformation thereof, wherein an alternating-current signal is calculated into an absolute value and output by impressing the alternating signal to the electrostrictive elements for deforming the same and by converting a distortion of the electrostrictive elements into an electric signal by using the detecting means.

2. An absolute value calculating element in which a piezoelectric/electrostrictive element is provided in the absolute value calculating element as recited in Claim 1 that is deformed in proportion to the amount of deformation of the electrostrictive elements, wherein an alternating-current signal is calculated into an absolute value and output by impressing the alternating signal to the electrostrictive element for deforming the same and by outputting electromotive force generated by the deformation of the piezoelectric/electrostrictive element.

3. The absolute value calculating element as recited in Claim 2, wherein the electrostrictive elements and the piezoelectric/electrostrictive element are overlapped and pinched between a rigid body that is not deformed.

4. The absolute value calculating element as recited

in Claim 2, wherein one end of the electrostrictive elements in a deforming direction thereof is fixed while the other end of the electrostrictive element is fixedly attached to one surface of an elastic plate body, which one end is fixed and its other end is formed as a free end, and a plate-like piezoelectric/electrostrictive element is fixedly attached to the other surface of the elastic plate body.

5. The absolute value calculating element as recited in Claim 2, wherein the electrostrictive elements and the piezoelectric/electrostrictive element are formed to assume a plate-like shape, wherein the electrostrictive elements are fixedly attached to one surface of the plate-like elastic plate body while the piezoelectric/electrostrictive element is fixedly attached to the an opposing surface of the plate-like elastic body.